

WHAT IS CLAIMED IS:

1. A system connected to a home network in which a plurality of devices are connected to one another through the Internet, the system provides a certain device in the home network with a service, comprising:

a database that stores address information about the home network that  
5 subscribes to the service, and information about at least one of a plurality of service recipient devices within the home network, wherein

the system transmits a notifying message to said at least one of the plurality of service recipient devices prior to providing the service, to confirm whether said at least one of the plurality of service recipient devices can  
10 receive the service or not, and provides the service to said at least one of the plurality of service recipient devices after receiving an affirmative response from said at least one of the plurality of service recipient devices, and wherein the notifying message contains additional identifying information of the service recipient devices as well as information about an address of the home  
15 network to which the plurality of service recipient devices belong.

2. The system of claim 1, wherein the additional identifying information is used for one of the plurality of devices of a same kind that intends to receive a same type of service.

3. The system of claim 1, wherein the additional identifying information includes information about at least one of a device type, a device property, a user name, a vendor, and a model name.

4. The system of claim 1, wherein the service is a push service that provides a certain service to said at least one of the plurality of service recipient devices repeatedly in a predetermined period.

5. A system for maintaining a plurality of devices connected in a home network, and for receiving a service from a service providing server existing outside of the home network, the system comprising:

a database that stores dynamic IP addresses of at least one of the plurality of devices within the home network as well as IDs of said at least one of the plurality of devices, said at least one of the plurality of devices corresponding to additional identifying information registered in the service providing server, wherein

the system receives a notifying message from the service providing server to confirm whether said at least one of the plurality of service recipient devices can receive the service or not, the notifying message containing the additional identifying information of said at least one of the plurality of service recipient devices, the system determines which of the plurality of devices corresponds to the additional identifying information contained in the notifying message, converts the IDs of the corresponding device into an IP address, and then transmits a response message.

6. The system of claim 5, wherein the additional identifying information is used for said at least one of the plurality of devices of a same kind that intends to receive a same type of service.

7. The system of claim 5, wherein the additional identifying information includes information about at least one of a device type, a device property, a user name, a vendor, and a model name.

8. The system of claim 5, wherein the service is a push service that provides a certain service to said at least one of the plurality of service recipient devices repeatedly in a predetermined period.

9. A method of a service providing server for providing a service, the service providing server connected to a home network through the Internet, the home network having a plurality of devices connected therein, the method of the service providing server comprising the steps of:

5 storing address information about a home network subscribed to the service providing server and storing additional identifying information of a service recipient device of the home network;

transmitting a notifying message prior to providing the service to confirm whether the service recipient device can receive the service or not, the  
10 notifying message containing address information about the home network that the service recipient device belongs to, and also containing the additional identifying information of the service recipient device; and

providing the service after receiving a response message from the service recipient device, the response message indicating that the service recipient device can receive the service.

10. The method of claim 9, wherein the additional identifying information is used for said at least one of the plurality of devices of a same kind that intends to receive a same type of service.

11. The method of claim 9, wherein the additional identifying information includes information about at least one of a device type, a device property, a user name, a vendor, and a model name.

12. The method of claim 9, wherein the service is a push service that provides a certain service to the service recipient device repeatedly in a predetermined period.

13. A method of a lookup server for receiving a service from an external service providing server, the lookup server maintaining a plurality of devices connected in a home network, the method comprising the steps of:

storing IDs and dynamic IP addresses of the plurality of devices that correspond to additional identifying information registered in the external service providing server;

receiving a notifying message from the service providing server to confirm whether a service recipient device can receive the service or not, the notifying message containing the additional identifying information about the

10 service recipient device, and then determining whether there is a device  
corresponding to the additional identifying information that is contained in the  
notifying message; and

when it is determined that there is a device corresponding to the  
additional identifying information contained in the notifying message,  
15 converting an ID of the corresponding device into an IP address and  
transmitting the converted IP address.

14. The method of claim 13, wherein the additional identifying  
information is used for those of the plurality of devices of a same kind that  
intend to receive a same type of service.

15. The method of claim 13, wherein the additional identifying  
information includes information about at least one of a device type, a device  
property, a user name, a vendor, and a model name.

16. The method of claim 13, wherein the service is a push service  
that provides a certain service to the service recipient device repeatedly in a  
predetermined period.

17. A system for providing a home network with a service, the home network having a plurality of devices that are connected to one another, the system comprising:

5 a service providing server that stores address information about a home network subscribed to the service, stores information about a service recipient device, and transmits a notifying message prior to providing the service to inquire about whether the service recipient device can receive the service or not, the notifying message containing address information about the home network that the service recipient device belongs to and additional identifying  
10 information about the service recipient device; and

a lookup server of the home network that stores an ID and a dynamic internet protocol (IP) address of one of the plurality of devices that corresponds to the additional identifying information registered in the service providing server, receives the notifying message from the service providing  
15 server, and determines whether there is a device corresponding to the additional identifying information contained in the notifying message, and if there is such a device, the lookup server converts the ID of the corresponding device into an IP address and transmits the converted IP address, wherein

the service providing server provides the service after receiving a  
20 response message from the service recipient device, the response message indicating that the service recipient device can receive the service.